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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,185	01/21/2004	Kia Silverbrook	MPA14US	2071

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BALMAIN, NSW 2041
AUSTRALIA

EXAMINER	
GOLDBERG, BRIAN J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,185	SILVERBROOK ET AL.	
	Examiner	Art Unit	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Lin et al. (US 20040012661).

3. Regarding claim 1, Silverbrook et al. disclose "at least one printhead module (10 of Fig 2) comprising at least two printhead integrated circuits (18 of Fig 4), each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (pg 5 ln 19), and a support member (16 of Fig 7) supporting and carrying the printing fluid for the at least two printhead integrated circuits; and at least one controller for processing print data and controlling the printhead integrated circuits to print processed print data (pg 5 ln 21-22); and a casing (14 of Fig 3) comprising a support frame (64, 94 and 32 and 76 about 16 of Fig 2) for supporting the at least one printhead module and controller, and an elongate...cover portion (28 of Fig 6) which is removably attached to the support frame (pg 4 ln 12-13) for covering the at least one controller." Thus Silverbrook et al. meet the claimed invention except the cover being metallic.

4. Lin et al. teach that metal, plastic, or rubber is interchangeable material for a cover (Par [0026] ln 5-7). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to make the cover metallic. One would have

been motivated to so modify the plastic, rubber cover of Silverbrook et al. with a metallic cover for the benefit of making the cover more durable.

5. Regarding claim 2, Silverbrook et al. disclose "drive electronics (54 of Fig 7) are provided for driving the at least two printhead integrated circuits of the at least one printhead module via an electrical connector (48 of Fig 8), the drive electronics incorporating the at least one controller; and the support frame (64 of Fig 2) further supports the drive electronics (see Fig 2)."

6. Regarding claim 6, Silverbrook et al. disclose "the at least one printhead module (10 of Fig 2) is formed as a unitary arrangement of the at least two printhead integrated circuits (18 of Fig 4), the support member (16 of Fig 7), at least one fluid distribution member (26 of Fig 7) mounting the at least two printhead integrated circuits to the support member, and an electrical connector (48, 22 of Fig 8) for connecting electrical signals to the at least two printhead integrated circuits from the at least one controller (pg 3 ln 17-18); and the support member has at least one longitudinally extending channel (80 of Fig 7) for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures (42 of Fig 7) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (see Fig 7 and pg 5 ln 19)."

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Lin et al. and further in view of Watchko et al. (US 6965071).

8. Silverbrook et al. in view of Lin et al. disclose the claimed invention as set forth above with respect to claim 1. Silverbrook et al. further disclose "wherein the cover portion (28 of Fig 6) is arranged to shield the drive electronics from electromagnetic interference by enclosing the drive electronics." Thus Silverbrook et al. in view of Lin et al. meets the claimed invention except "the cover portion being formed of aluminium."

9. Watchko et al. teach a cover portion used for shielding being interchangeably formed of aluminum, plastic, or other polymeric material. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to form the cover of aluminum. One would have been motivated to so modify Silverbrook et al. in view of Lin et al. for the benefit of providing effective EMI shielding, as stated by Watchko et al.

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Lin et al. and further in view of Wakabayashi et al. (US 5615085). Silverbrook et al. disclose the claimed invention as set forth above with respect to claim 2. Thus Silverbrook et al. meets the claimed invention except "wherein the cover portion comprises fin portions arranged on an outer surface thereof...so as to be adjacent the drive electronics" and "wherein the cover portion further comprises a heat coupling material portion arranged on an inner surface thereof."

11. Wakabayashi et al. teach "wherein the cover portion comprises fin portions arranged on an outer surface thereof (col 13 ln 53-61 and col 14 ln 1-6)" and "wherein the cover portion further comprises a heat coupling material portion arranged on an inner surface thereof (102 of Fig 1 and col 10 ln 4-9)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide fin

portions and a heat coupling material. One would have been motivated to so modify Silverbrook et al. for the benefit of improving heat dissipation of the electronics by increasing the efficiency of heat removal with the heat coupling material and increasing the surface area with the fins, which more efficiently cools the electronics, as stated by Wakabayashi et al.

Response to Arguments

12. Applicant's arguments filed 5/25/06 have been fully considered but they are not persuasive. The shift register, transfer register, enable gate, drive transistor and data inputs cited in the Silverbrook reference constitute the claimed controller, which is processing data, and not merely routing data, and is incorporated as part of the drive electronics which include the Memjet chip.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Goldberg
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August 31, 2006

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